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**REMARKS**

Claims 21, 24-28, 41-54 are pending in the present application. Claims 21, 24, 45, 46, and 50-52 have been amended, leaving Claims 21, 24-28, 41-54 for consideration upon entry of the present amendment. No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

**Claim Rejections Under 35 U.S.C. § 112, First Paragraph**

Claims 21, 24, 27, 28, 45, 46, 48-51, 53, and 54 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the Specification in such a way as to reasonably convey to one skilled in relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The claims have been amended to specifically claim metal disulfides as opposed to metal sulfides. Support for metal disulfides is found throughout the specification. Applicants respectfully request withdrawal of the rejection in light of the amendment.

**Claim Rejections Under 35 U.S.C. § 102(b)**

Claims 45-48 and 50-53 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by U.S. Patent No. 5,716,422 to Muffoletto. Applicants respectfully traverse this rejection.

To better define the invention, Applicants have amended independent Claim 45 to recite the limitation "wherein the layer of active material comprises greater than 95% of the active material" and independent Claim 50 to recite the limitation "wherein the film of an active material comprises greater than 95% of the active material". This limitation clearly distinguishes the present invention over the compositions of Muffoletto which do not fulfill this limitation.

To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barent, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1007 (1988). Moreover, the single source must disclose all of the claimed elements "arranged as in the claim." *Structural Rubber*

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*Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984).

While Muffoletto discloses the use of FeS<sub>2</sub>, it does not disclose that the layer containing the active material contains greater than 95% of the active material. In fact, as shown in the inventor's Rule 1.132 Declaration, an FeS<sub>2</sub> layer deposited as taught in Muffoletto would be primarily Fe<sub>2</sub>O<sub>3</sub>, not FeS<sub>2</sub>. Thus, Muffoletto does not disclose an FeS<sub>2</sub> layer as claimed in the present application.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 49 and 54 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Muffoletto in view of Gay. Applicants respectfully traverse this rejection.

Gay teaches an electrochemical cell in which the cathodes comprises a transition metal sulfide such as FeS<sub>2</sub> (Abstract). The particle sizes of the pyrite are 15 nanometers to 200 nanometers (Column 5, lines 54-56).

In making the rejection, the Examiner states "To utilize the teachings of Muffoletto the 15 nanometer particle size of Gay would have been obvious to one of ordinary skill in this art".

As explained in detail above, Muffoletto neither anticipates nor renders obvious the present claims. Gay does not cure the defects of Muffoletto as it does not supply the element of the percentage of active material in the layer. For at least these reasons, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

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If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' attorneys.

Respectfully submitted,

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